

MULTI-SPINDLE POSITIONING APPARATUS

Abstract

A spindle positioning apparatus for a robotic manipulator. The spindle positioning apparatus includes a mounting plate assembly, first and second spindles, and an actuator mechanism. The first spindle is disposed on the mounting plate assembly in a fixed position. The second spindle is disposed on the mounting plate assembly and is movable with respect to the first spindle. The actuator mechanism is adapted to move the second spindle with respect to the first spindle.